

Application No.: 09/899,994  
Amendment under 37 CFR 1.116  
Reply to Office Action dated January 27, 2005  
May 27, 2005

AMENDMENTS TO THE CLAIMS

Please substitute the following claims for the pending claims with the same numbers respectively:

Claim 1 (Currently amended): A signal processing device which decodes a data stream which includes a first audio data and a second audio data sampled at different respective sampling frequencies of  $fs_1$  and  $fs_2$ , where  $fs_1 < fs_2$ , comprising:

a decoder for receiving and separating said data stream into said first audio data and said second audio data and for outputting said first audio data and said second audio data;

a filter for performing re-sampling upon said first audio data at the same sampling frequency  $fs_2$  as that of said second audio data, and suppressing aliasing distortion due to said re-sampling, and for outputting said first audio data from said filter; and

a delay unit for delaying said second audio data by a delay period equal to a processing period due to said filter, and for outputting said second audio data concurrently with said first audio data;

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wherein signal processing delay time in said filter  
corresponds to a predetermined processing unit of inputted audio  
data.

Claim 2 (Original): A signal processing device according to claim 1, wherein said decoder separates said data stream, processing unit thereof corresponding to said processing period in said filter, into said first and second audio data having original sampling frequencies, respectively.

Claim 3 (Cancelled):

Claim 4 (Currently amended): A signal processing device according to claim 1, wherein said filter comprises:

a re-sampling circuit for performing re-sampling upon said first audio data having said sampling frequency  $fs_1$  at said sampling frequency  $fs_2$  as that of said second audio data; and

~~an~~ a FIR filter which suppresses aliasing distortion in said first audio data.

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Claim 5 (Previously presented): A signal processing device according to claim 1, wherein said second audio data includes at least audio data for a forward right channel and audio data for a forward left channel.

Claim 6 (Previously presented): A signal processing device according to claim 2, wherein said second audio data includes at least audio data for a forward right channel and audio data for a forward left channel.

Claim 7 (Cancelled):

Claim 8 (Original): A signal processing device according to claim 1, wherein said sampling frequency fs1 is one of 48 kHz and 44.1 kHz, and said sampling frequency fs2 is twice as high as said sampling frequency fs1.

Claim 9 (Original): A signal processing device according to claim 2, wherein said sampling frequency fs1 is one of 48 kHz and 44.1 kHz, and said sampling frequency fs2 is twice as high as said sampling frequency fs1.

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Claim 10 (Cancelled):

Claim 11 (Previously presented): A signal processing device according to claim 1, wherein:

said second audio data includes at least audio data for a forward right channel and audio data for a forward left channel;

said sampling frequency  $fs_1$  is one of 48 kHz and 44.1 kHz;  
and

said sampling frequency  $fs_2$  is twice as high as said sampling frequency  $fs_1$ .

Claim 12 (Currently amended): A signal processing method which decodes a data stream which includes a first audio data and a second audio data sampled at different respective sampling frequencies of  $fs_1$  and  $fs_2$ , where  $fs_1 < fs_2$ , said method comprising the steps of:

decoding the data stream and separating the data stream into the first audio data and the second audio data and outputting the first audio data and the second audio data;

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filtering the first audio data by re-sampling at the same sampling frequency  $fs_2$  as that of the second audio data, and suppressing aliasing distortion in the first audio data obtained following said ~~step of~~ re-sampling, and outputting the first audio data; and

delaying the second audio data by a delay period equal to a processing period due to said step of filtering to output the second audio data concurrently with the first audio data;

wherein a processing period in said step of filtering corresponds to a predetermined processing unit of inputted audio data.

Claim 13 (Previously presented): A signal processing method according to claim 12, wherein said step of decoding separates the data stream into the first and second audio data having original sampling frequencies, respectively.

Claim 14 (Cancelled):

Claim 15 (Previously presented): A signal processing method according to claim 12, wherein said step of filtering comprises:

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re-sampling the first audio data having the sampling frequency of  $fs_1$  at the same sampling frequency  $fs_2$  as that of the second audio data and suppressing aliasing distortion in the first audio data.

Claim 16 (Previously presented): A signal processing method according to claim 12, further comprising the step of providing the second audio data with at least audio data for a forward right channel and audio data for a forward left channel.

Claim 17 (Previously presented): A signal processing method according to claim 12, wherein said step of filtering includes using the sampling frequency  $fs_1$  from at least one of 48 kHz and 44.1 kHz, and said step of delaying includes using the sampling frequency  $fs_2$  which is twice the sampling frequency  $fs_1$ .

Claim 18 (Currently amended): A signal processing method according to claim 12, further comprising the step of providing the second audio data with at least audio data for a forward right channel and audio data for a forward left channel;

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and wherein said step of filtering includes using the sampling frequency  $fs1$  from at least one of 48 kHz and 44.1 kHz; and

said step of delaying includes using the sampling frequency  $fs2$  which is twice as high as the sampling frequency  $fs1$ .

Claim 19 (Original): An optical disk reproducing device which reproduces multi-channel audio signals using a signal processing device according to claim 8, when reproducing an optical disk upon which said first and second audio data, which have been sampled at respective different sampling frequencies  $fs1$  and  $fs2$  with  $fs1 < fs2$ , have been recorded as a single stream of audio data.